

FIRE BEHAVIOR FORECAST

FORECAST NUMBER: 00132

TYPE OF FIRE: Wildland Fire

FIRE NAME: West Texas Zone

OPERATIONAL PERIOD: 8/18/00 to 8/21/00

DATE ISSUED: 08/17/00

TIME ISSUED: 1600

UNIT: Texas Forest Service

SIGNED: Clint Cross, FBAN

This product is a summary of weather and fuel conditions, combined to produce an assessment of fire behavior potential for the entire West Texas Zone. The primary intent of the product is to assist wildland firefighters with the fire order: **“Initiate all action based on current and expected fire behavior.”** Fire suppression personnel should use their knowledge of local fuels and topography, in combination with the fire weather forecast to determine site specific fire behavior.

INPUTS

WEATHER SUMMARY via NWS Fire Weather Forecasts: High pressure will weaken over the Panhandle allowing a weak cold front to move into the area. High pressure will continue to dominate the rest of the state. A high Haines index is forecasted for Central, North and the Hill Country.

Maximum temperatures: upper 80's to 100's

Minimum temperatures: lower 60's to 70's,

Humidity: a low of 20% to 45% during the afternoon, recovery to 60 to 75% at night

Winds: generally South 5 to 15 mph, with strong gusts around thunderstorms.

OUTPUTS

FIRE BEHAVIOR

GENERAL: Low fine fuel moistures and a High Haines index will lead to the most significant potential for large fire growth this season in North, Central and the Hill Country. Fire starts or fires not contained after 1400 will have a high potential to grow to project fires if there is continuous fuels.

SPECIFIC:

North Texas, Central Texas, Hill Country - Expect rates of spread 180 feet/min and flame lengths of 7 feet in grass fuels plus rates of spread of 20 feet/min. and flame lengths of 5 feet in hardwood litter from 1200 to 2300. Expect short range spotting over containment lines during this time. Also, once large fire develops, long range spotting will be possible. Probability of ignition is 100% during the afternoon. Maximum spotting distance is 3/10 of a mile. Fire line intensity will likely exceed the limits for direct attack at the head of the fire with engines and heavy equipment from 1200 to 2300. The limited humidity recovery at night will cause fires to remain active until after midnight. The high Haines index will lead to a significant possibility of a crown fire developing, particularly in the Hill Country.

Panhandle, Rolling Plains - Rates of spread of 80 ft/min and flames lengths of 4 feet in short grass will occur from 1200 to 2000. Brush will not actively carry fire. Probability of ignition is 80% in the afternoon. Maximum spotting distance is 600 feet. Fires will be within the limits for direct attack with engines.

South Texas – Rates of spread of 20 ft/min and flames lengths of 2 feet in short grass will occur from 1200 to 2000. Brush will not actively carry fire. Probability of ignition is 40% in the afternoon. Fires will be within the limits for direct attack with engines.

West Texas: Fire activity and behavior will be minimal. Green up and high humidity will limit fire growth. Expect flame lengths of 2 to 3 feet and rates of spread 30 feet/minute in short grass from 1300 to 1800. Brush will not actively carry fire. Fire line intensity will be within the limits for direct attack with engines.

AIR OPERATIONS: Winds S 5 to 15 mph. Watch out for gusty winds around thunderstorms.

SAFETY

Watch out for extreme fire behavior after 1200. Remember: when flame lengths reach above 6 feet equipment becomes ineffective. Do not attempt a frontal assault at the head of the fire from unburned fuel.

Please send any comments on this product to Clint Cross at ccross@tfs.tamu.edu or 830-596-1173